



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

[EPA-HQ-OW-2016-0332; FRL9949-87-OW]

Request for Scientific Views: Draft Aquatic Life Ambient Estuarine/Marine Water Quality

Criteria for Copper-2016

AGENCY: Environmental Protection Agency (EPA).

ACTION: Notice of Availability.

SUMMARY: The Environmental Protection Agency (EPA) is announcing the availability of EPA's *Draft Aquatic Life Ambient Estuarine/Marine Water Quality Criteria for Copper – 2016* for public comment. EPA's Clean Water Act section 304(a)(1) draft recommended water quality criteria incorporate a recently-developed saltwater biotic ligand model (BLM) and the latest scientific information for estuarine/marine aquatic organisms. The updated recommended criteria will be particularly beneficial in the adoption of water quality standards for the protection of aquatic life in and around coastal harbors and marinas, where antifouling paints and coatings on vessels and marine structures represent one of the most commonly identified sources of copper to the estuarine/marine environment.

Following closure of this 60-day public comment period, EPA will consider the comments, revise the document, as appropriate, and then publish a final document that will provide recommendations for states and authorized tribes to establish water quality standards under the Clean Water Act (CWA).

DATES: Comments must be received on or before [insert date 60 days after publication in the

Federal Register].

ADDRESSES: Submit your comments, identified by Docket ID No. **EPA-HQ-OW-2016-0332**, to the *Federal eRulemaking Portal*: <http://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or withdrawn. EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e., on the web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

FOR FURTHER INFORMATION CONTACT: Mike Elias, Health and Ecological Criteria Division, Office of Water, (Mail Code 4304T), Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460; telephone: (202) 566-0120; e-mail: elias.mike@epa.gov.

SUPPLEMENTARY INFORMATION:

I. General Information:

A. How can I Get Copies of This Document and Other Related Information?

1. Docket: All documents in the docket are listed in the www.regulations.gov index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted

material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in www.regulations.gov or in hard copy at the Water Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the Water Docket is (202) 566-2426. For additional information about EPA's public docket, visit EPA Docket Center homepage at <http://www.epa.gov/epahome/dockets.htm>.

II. What are EPA's Recommended Water Quality Criteria?

EPA's recommended water quality criteria are scientifically derived numeric values that protect aquatic life or human health from the deleterious effects of pollutants in ambient water. Section 304(a)(1) of the Clean Water Act (CWA) directs EPA to develop and publish and, from time to time, revise criteria for protection of aquatic life and human health that accurately reflect the latest scientific knowledge. Water quality criteria developed under section 304(a)(1) are based solely on data and the latest scientific knowledge on the relationship between pollutant concentrations and environmental and human health effects. Section 304(a)(1) criteria do not reflect consideration of economic impacts or the technological feasibility of meeting pollutant concentrations in ambient water.

EPA's recommended section 304(a)(1) criteria provide technical information to states and authorized tribes in adopting water quality standards (WQS) that ultimately provide a basis for assessing water body health and controlling discharges of pollutants. Under the CWA and its implementing regulations, states and authorized tribes are to adopt water quality criteria to protect designated uses (e.g., public water supply, aquatic life, recreational use, or industrial use).

EPA's recommended water quality criteria do not substitute for the CWA or regulations, nor are they regulations themselves. EPA's recommended criteria do not impose legally binding requirements. States and authorized tribes have the discretion to adopt, where appropriate, other scientifically defensible water quality criteria that differ from these recommendations.

III. What is Estuarine/Marine Copper and Why is EPA Concerned About it?

Copper is an abundant trace element that occurs naturally in the earth's crust and surface waters. It is a nutrient that is essential to aquatic organisms at low concentrations, but is toxic to aquatic organisms at higher concentrations. In addition to acute effects such as mortality, chronic exposure to copper can lead to adverse effects on survival, growth, reproduction as well as alterations of brain function, enzyme activity, blood chemistry, and metabolism in aquatic organisms. Copper is commonly found in aquatic systems as a result of both natural and anthropogenic sources. Natural sources of copper in aquatic systems include geological deposits, volcanic activity, and weathering and erosion of rocks and soils. Anthropogenic sources of copper include mining activities, agriculture, metal and electrical manufacturing, sludge from publicly-owned treatment works (POTWs), pesticide use and more. A major source of copper in the marine environment is antifouling paints, used as coatings for ship hulls, buoys, and underwater surfaces, and as a legacy contaminant from decking, pilings and some marine structures that used chromated copper arsenate (CCA) treated timbers.

IV. Information on the Draft Document

The 2016 draft recommended update uses the saltwater biotic ligand model (BLM), a bioavailability model that relies on water quality input parameters, to estimate copper criteria protective of aquatic life in estuarine/marine environments. The BLM allows users to determine criteria values based on site-specific water quality variables (temperature, pH, dissolved organic

carbon, and salinity) that influence the bioavailability and toxicity of copper in estuarine/marine environments. EPA has included new acute toxicity data for estuarine/marine species in the 2016 draft recommended update. EPA used a total of 74 genera to derive the estuarine/marine criterion maximum concentration (CMC) in the 2016 update compared to the 44 genera EPA used in EPA's 2003 draft estuarine/marine criteria for copper. Incorporation of the BLM accounts for copper bioavailability in natural aquatic systems, in contrast to the 2003 draft criteria which did not account for the interactions of these parameters on copper bioavailability and their effect on copper toxicity.

V. Solicitation of Scientific Views:

EPA is soliciting additional scientific views, data, and information regarding the science and technical approach used in the derivation of the draft document.

Dated: July 15, 2016.

Joel Beauvais,

Deputy Assistant Administrator, Office of Water.

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